

## **Monroe Power Project Description**

Open Road Renewables, LLC (the “Applicant”) requests of a Special Exception Use to establish a battery energy storage system (“BESS”) facility (the “Facility”) that is charged with electricity from, and discharges that electricity back to, the portion of Indiana’s electric grid serving LaPorte County and the surrounding region. As shown on the Site Plan attached to the Petition for Special Exception (the “Petition”) as Exhibit 4, the Facility will be located on portions of two parcels, identified as a Parcel ID Nos. 46-12-30-100-008.000-555 and 46-12-30-100-010.000-055, portions of which will constitute the new project parcel (“Parcel”) after a subdivision/lot line adjustment approval by the County. After the subdivision/lot line adjustment, the Parcel lot lines will be as shown on Exhibit 3B attached to the Petition. The Parcel is legally described on Exhibit 7 to the Petition. The Parcel is adjacent to and south of State Road 104 and is also adjacent to and north of NIPSCO’s Stillwell electric substation (the “Substation”). The Parcel will be owned by Monroe Power, LLC which is the Applicant’s project development entity for development of the Facility. The Parcel is currently zoned Agricultural under the La Porte County Joint Zoning Ordinance and a “Utility Substation” is permitted subject to a Special Exception Use.

The construction of the Facility will upgrade and improve the efficiency and resiliency of the electric grid in La Porte County and the surrounding region, becoming a long-term improvement to the region’s shared transmission infrastructure. The Facility’s energy storage capability will not only improve the reliability of the grid, but may enable NIPSCO, and therefore the public, to avoid or defer obtrusive and more costly upgrades to the grid over time. These avoided or deferred upgrades could include new or larger high-voltage transmission lines, as well as new power plants. Ultimately, the Facility is expected to be owned and operated by, or otherwise contractually committed to, NIPSCO as a part of its electric power infrastructure.

The Facility will consist of a group of metal containers mounted on concrete foundations, each of which houses batteries of the same type used in cell phones, laptops and electric cars. These batteries will store Direct Current (“DC”). Because the grid mostly uses Alternating Current (“AC”), the Facility will include a series of devices known as inverters, which convert DC to AC, and vice versa. The Facility will also feature an energy management system, an HVAC and thermal management system, and a fire detection and control system. The Facility will connect to the Substation by means of a switchyard that will change the voltage of the power as it travels between the Facility and the Substation.

The Facility will be closed to the public, and all of its above-ground features will be within the fenced for safety and security. Most of the electric cabling connecting the equipment will be enclosed or below grade. The Facility may also include a small single-floor office and storage building for operations and maintenance purposes. Although the Parcel is already heavily vegetated along much of its perimeter and significantly set back from the nearest public road (~1200 feet) and the nearest residential dwelling (~1000 feet), the sides facing public roads or adjacent residences will include additional vegetative landscaping and other features to enhance its appearance. Once complete, the Facility will largely be obscured from adjoining properties and public roads. Construction of the Facility is expected to take 9 to 18 months.

The location and size of the Facility and its connecting line to the Substation has been studied and is expected to be approved as a new part of the grid by MISO Interconnection by Spring of 2023.

MISO is the federally recognized “Regional Transmission Organization” tasked with coordinating and managing the movement of wholesale power over a multi-state area that includes Indiana. A key feature of the Facility’s location is that it would be adjacent to an existing substation, which avoids the need for long transmission lines between the BESS facility and the power grid.

The immediately adjacent Stillwell Substation has created an ambiance within the immediate vicinity that is consistent with a passive public utility use, and construction of the proposed electric energy battery facility would be analogous to this passive public utility ambiance. Locating the Facility immediately adjacent to an existing substation is appropriate given the desire to limit impacts to La Porte County beyond areas already impacted by such facilities.

The Property will be accessed via a singular site entrance along State Road 104, which is an undivided roadway adjacent to the Parcel on the north side. Due to the relatively passive use of the site during operations of the Facility, a de minimis number of trips are expected to be added to the regional intersections. Sufficient parking is being provided on site which will accommodate employees on site for periodic maintenance of the facility and others as needed.

The Facility will consist of the fenceline, battery containers and associated equipment, access roads, collection lines, inverters, electrical equipment pads, and a Facility collection yard that will connect directly to the adjacent Substation.

As depicted on the Site Plan (Exhibit 4), the Applicant is proposing to install a landscape buffer around the entire perimeter of the Property. The buffer will consist of a 20-foot wide planted vegetative buffer along the northern and eastern perimeters of the Facility, while existing vegetation and forest cover on the southern and western perimeters of the Property will be preserved. Once completed, the closest residential structure would be located ~1000 feet from the nearest BESS unit and separated by an expanded setback, vegetative buffer, a fence, and internal project lane. Below is a before and after visual rendering of the site from State Road 104 looking south.

Existing vantage from State Road 104 looking south



Visual simulation of Monroe Power with landscaping



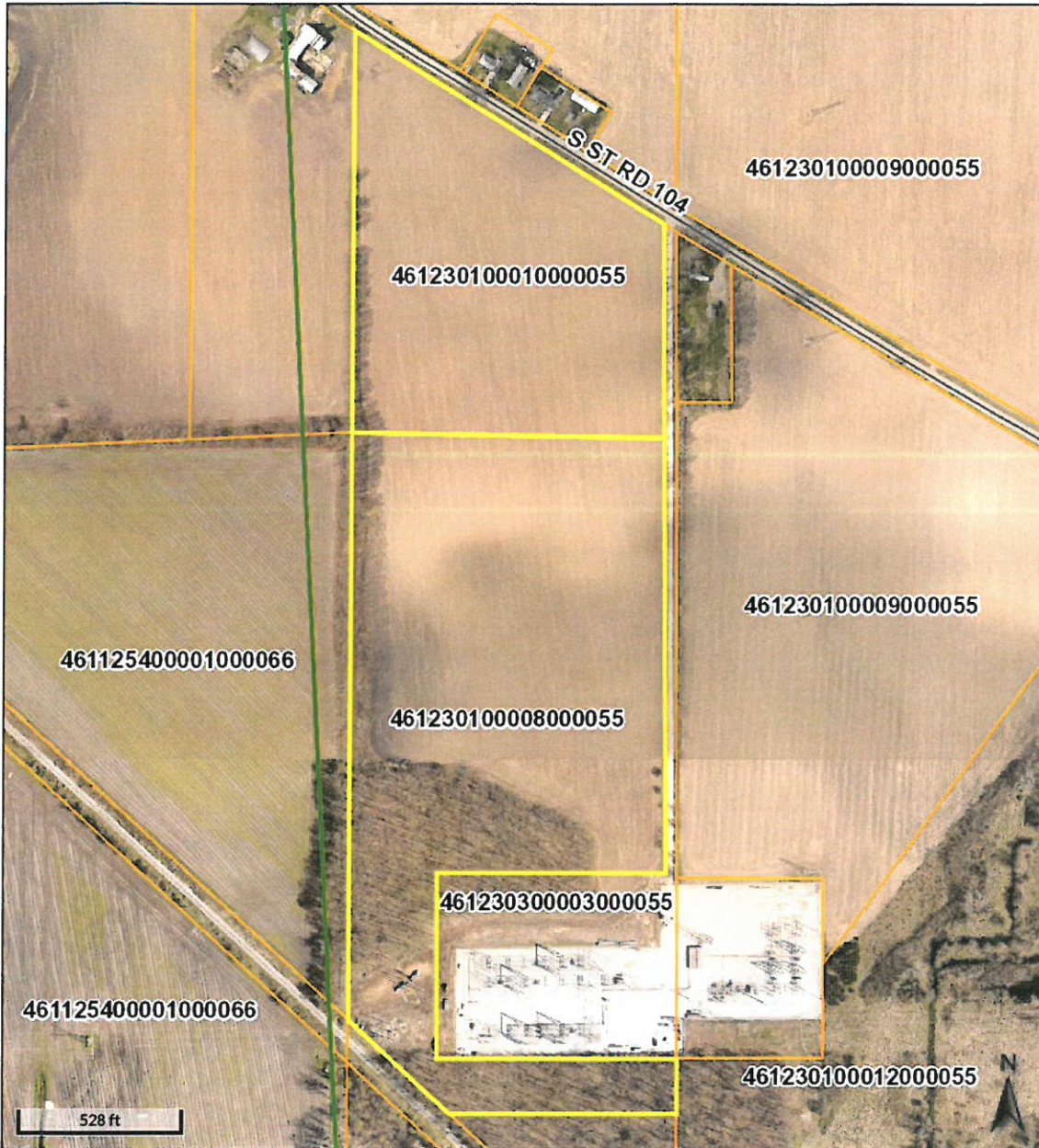
The combined result of the landscape buffer, setbacks, distance provided from existing residences, overall low profile of the Facility, and level nature of the site mean that the viewshed impacts from adjacent residential properties will be fully mitigated. The proposed facility will allow for a lot coverage percentage well below the maximum allowed in the Agricultural District, and the Facility has been designed to meet or exceed all applicable setback requirements. The proposed facility and modifications will not have an adverse impact on any environmental features on the Property or adjacent properties.

The Facility will not discharge water or waste into any stream or waterbodies, nor will the Facility require the use of water for colling or other activities beyond landscape management. The Parcel has been historically fully disturbed by agricultural operations and has been extensively surveyed for environmentally sensitive elements. The Parcel has no wetland features and is clear of threatened or endangered species, sensitive habitat, or cultural resources. No forests will be cleared as part of construction of the Facility, and the added landscape buffer includes the addition of a significant number of new trees, shrubs, and pollinator-friendly habitat. While limited in scope by the relatively small size of the facility, the conversion of active crop land to a passive use also represents a reduction of chemical fertilizer, pesticides, herbicides, and fungicides on the Parcel for many decades.

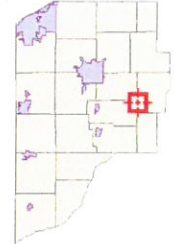
Construction of the facility at its peak may involve an estimated 50 workers. Although employment related to the construction of the Facility will be substantial, it is relatively short-term and not expected to result in the permanent relocation of construction workers to the area; therefore, the Facility is not anticipated to generate population growth or a notable increase in traffic within the Project area. Once operational, the Facility will be primarily remotely monitored, and on-site personnel will be limited to landscape management, security, and periodic maintenance visits, similar in frequency to the adjacent Substation.

The facility would represent a capital investment in the local tax base well in excess of \$100 Million, representing a significant investment in the local economy and tax base. The facility is planned to be owned and operated by, or otherwise contracted to, NIPCSO.





Overview



Legend

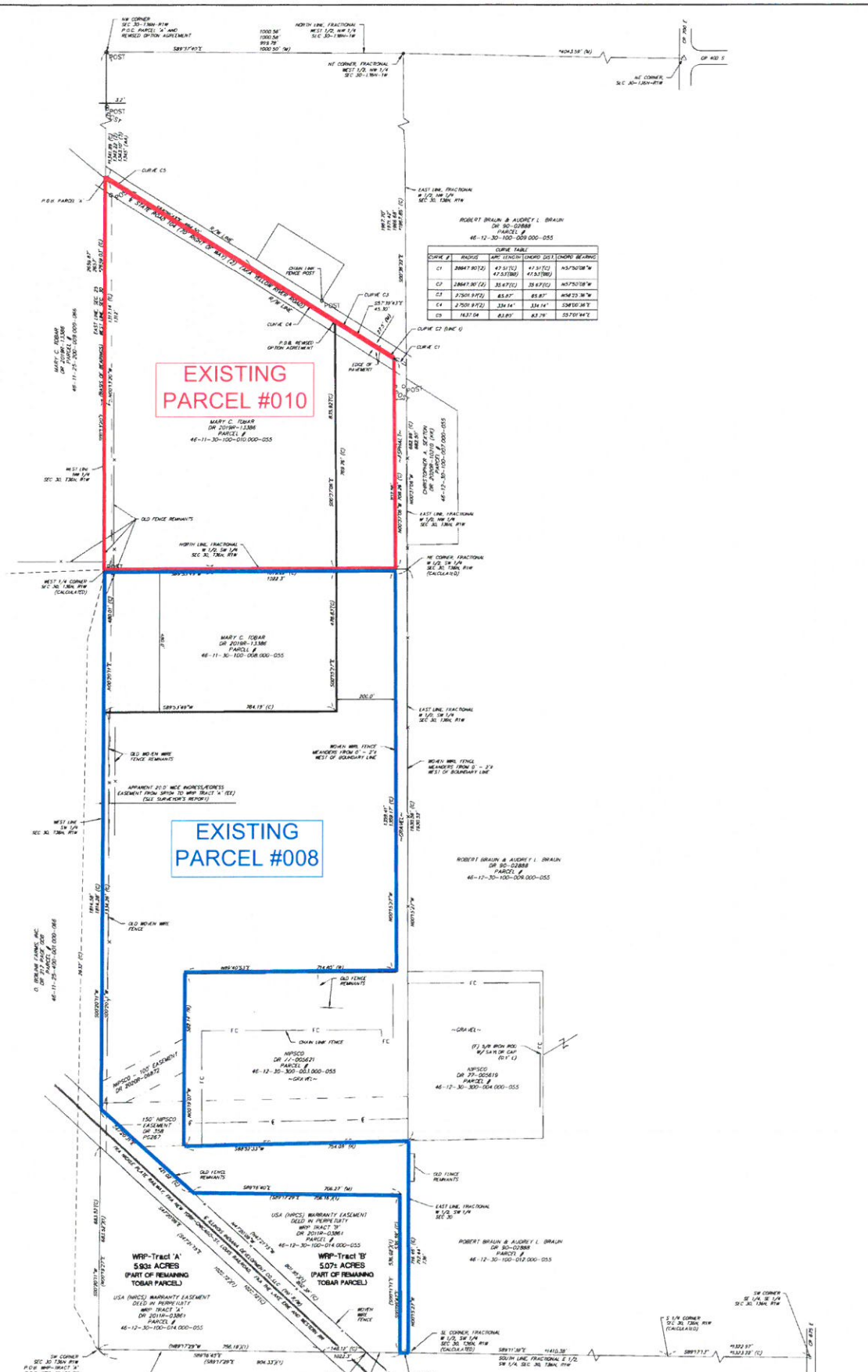
- Road Centerlines
- Geographic Townships
- Parcels

Date created: 3/31/2022  
Last Data Uploaded: 3/31/2022 4:53:41 AM

Developed by  **Schneider**  
GEOSPATIAL







**EXISTING PARCEL #010**  
 MARY C. DEBAR  
 DN 2018W-118M  
 PARCEL #  
 46-11-30-100-010-000-055

**EXISTING PARCEL #008**  
 MARY C. DEBAR  
 DN 2018W-118M  
 PARCEL #  
 46-11-30-100-008-000-055

**NOTES**  
 (1) BEARING AND DISTANCE AS REFERENCED IN DOCUMENTS 2018-0386 AND 2018-0387 ARE UNCORRECTED PLAT TO SURVEY PROVIDED BY OWNER (SHTO 8-14-2018). THIS SURVEY IS NOT A RE-SURVEY SURVEY.

**DESCRIPTION SKETCH**

SECTION 30, TOWNSHIP 36N, RANGE 1W  
 LINCOLN TOWNSHIP, LAPORTE COUNTY, INDIANA

**TERRITORIAL ENGINEERING, LLC**  
 WALKERTON, INDIANA  
 PROFESSIONAL ENGINEERS

DATE: 3/1/2022 JOB NUMBER: 21-191 FILE: SECTION DRAWN/CHANGED: DLS/HSA SHEET: 1 OF 2

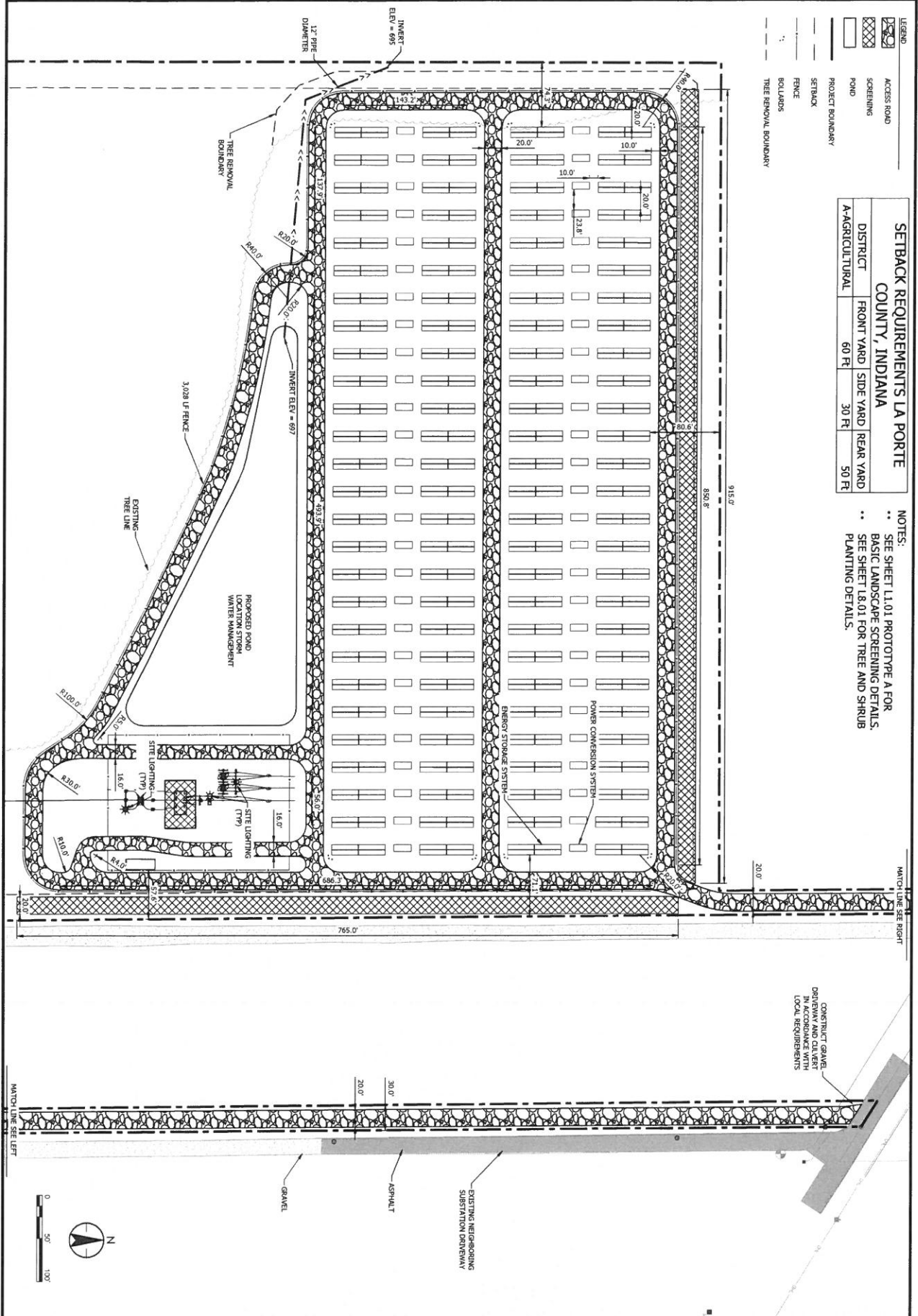
- LEGEND**
- DA = DEC RECORD BOOK/FILE
  - DR = RECORD
  - PL = PLAT
  - RE = RECORD
  - NO = NO SURVEY
  - RO = ROAD
  - CO = COMPLETE POINT OF NEW MARKER
  - LE = LEASTING FENCE
  - DF = DRAIN LINE FENCE
  - TR = TRAILER TRACK POINT
  - XX = DIMENSION NOT TO SCALE
  - XX = POINT OF NEW











**LEGEND**

- SCREENING
- POND
- PROJECT BOUNDARY
- SETBACK
- FENCE
- BOLLARDS
- TREE REMOVAL BOUNDARY

**SETBACK REQUIREMENTS LA PORTE COUNTY, INDIANA**

DISTRICT	FRONT YARD	SIDE YARD	REAR YARD
A-AGRICULTURAL	60 FT	30 FT	50 FT

**NOTES:**

- .. SEE SHEET L1.01 PROTOTYPE A FOR BASIC LANDSCAPE SCREENING DETAILS.
- .. SEE SHEET L8.01 FOR TREE AND SHRUB PLANTING DETAILS.

**DATE OF ISSUANCE**

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMITS	02/27/2022

**DATE OF REVISION**

NO.	DESCRIPTION	DATE

**PROJECT NUMBER**  
C2.01

**SITE PLAN**

MONROE POWER FACILITY  
 OPEN ROAD BATTERY ENERGY STORAGE SYSTEMS  
 LINCOLN TOWNSHIP, LAPORTE COUNTY, INDIANA

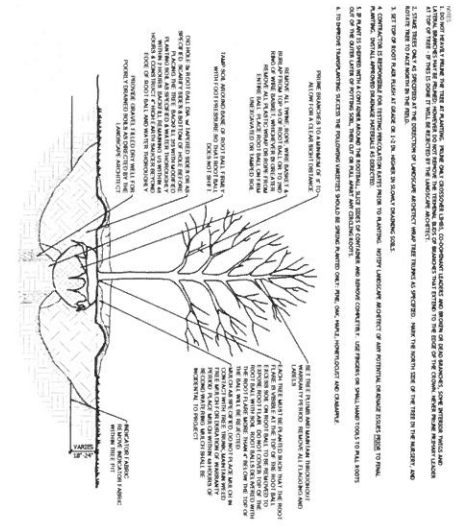
**PRELIMINARY FOR PERMITS**

**Stantec**  
 12075 N. Corporate Parkway, Suite 200  
 Mequon, WI 53092  
 www.stantec.com



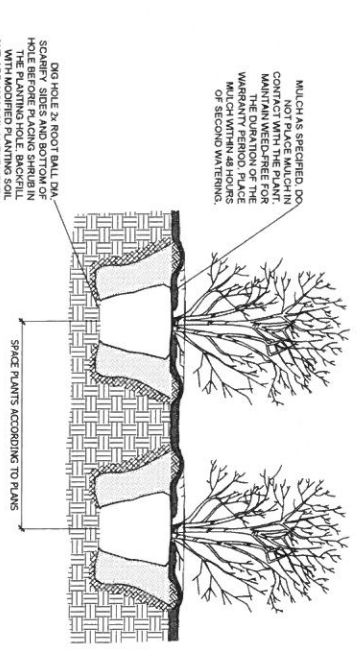




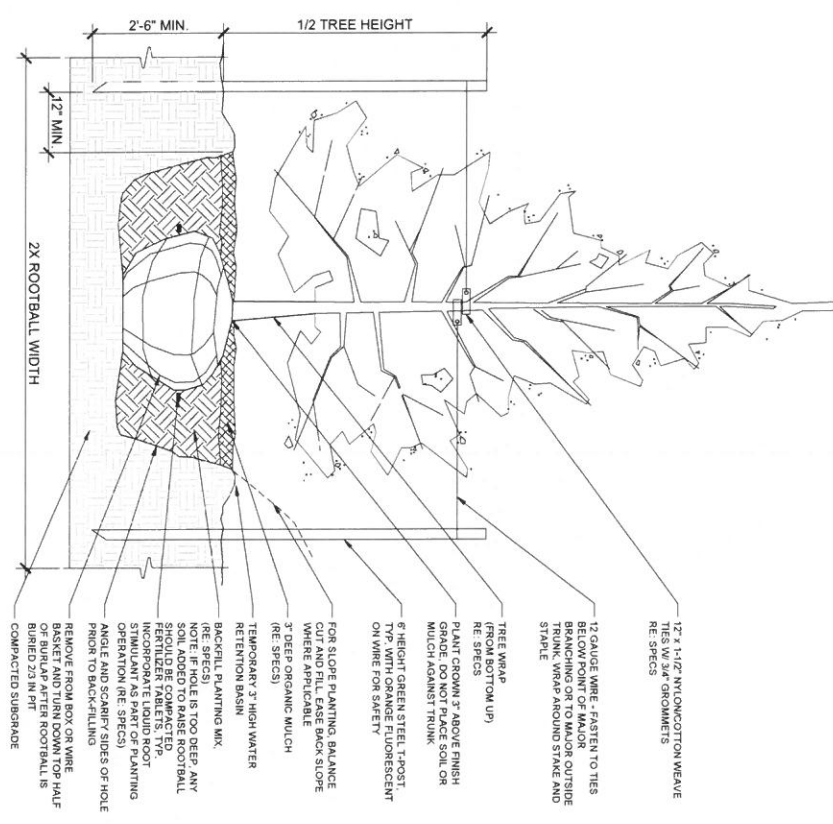


**1 TREE PLANTING**  
 NTS

- NOTES:**
- IF PLANT IS SHIPPED WITH A CONTAINER AROUND THE ROOTBALL, SLICE SIDES OF CONTAINER AND REMOVE COMPLETELY. USE FINGERS OR SMALL HAND TOOLS TO PULL ROOTS OUT OF THE OUTER LAYER OF ROOTING SOIL. THEN CUT OFF PULL APART ANY CIRCLING ROOTS.
  - SET TOP OF ROOT BALL FLUSH TO GRADE OR 1/2 IN. HIGHER IN SLOPE, DRAINING SOILS. ADD INCORPORATE FERTILIZER TABLETS TO PLANTING MIX PER MANUFACTURER'S DIRECTIONS.
  - WATER REGULARLY THROUGHOUT SPRING AND SUMMER. WATER REGULARLY THROUGHOUT SPRING AND SUMMER.
  - DO NOT HEAVILY PRUNE AT PLANTING. PRUNE ONLY BROKEN OR DEAD BRANCHES, RETAINING NATURAL FORM.



**2 TYPICAL SHRUB PLANTING**  
 NTS



**3 EVERGREEN TREE**  
 NTS

NO.	DATE	BY	CHKD.	APP'D.
1	03/27/2022	PRR	PRR	PRR
2				
3				
4				
5				
6				
7				
8				
9				
10				

**LANDSCAPE DETAILS**  
 MONROE POWER FACILITY  
 OPEN ROAD BATTERY ENERGY STORAGE SYSTEMS  
 LINCOLN TOWNSHIP, LAPOORTE COUNTY, INDIANA

**PRELIMINARY FOR PERMITS**

11075 N. Corporate Parkway, Suite 300  
 Madison, WI 53792  
 www.stantec.com

18.01

## INFORMATION ABOUT BATTERY ENERGY STORAGE SYSTEMS (BESS) FOR THE INDIANA ELECTRIC GRID



### Purposes and Uses

- BESS on the electrical grid quickly store and discharge large amounts of energy, which enables more efficient and reliable management of the grid
- As demand for power grows, renewable energy additions increase, and the grid itself evolves, BESS will help avoid or defer the cost of new transmission lines and conventional power plants
- Similar to the phenomenon seen in laptops and smart phones, dramatic cost reductions driven by technology advances and competition now make BESS economically viable
- BESS will become an integral part of the grid, just like transmission lines and electric substations
- Most BESS will be owned and operated by utilities

### Locations

- BESS are being added to the existing grid, which covers virtually all of Indiana
- Most BESS will be located next to existing substations
- Specific BESS locations and sizes are studied and approved by the grid manager to ensure compatibility
- Low, compact profile and relatively passive use makes BESS benign vs. many other land uses, enabling flexibility in siting.

### Construction

- Construction of a BESS usually includes:
  - Clearing and grading (civil site prep work)
  - Trenching for buried cables and conduit
  - Delivering, setting and anchoring the equipment
  - Electrically connecting the equipment
- Construction of a BESS takes 9 to 18 months

### Operation

- BESS are continuously monitored and rigorously maintained to ensure safe and efficient operation
- Over the years, individual batteries or modules may be added and/or replaced, as needed
- Replaced batteries are reused, recycled or disposed of in accordance with applicable requirements
- Over decades, long-lasting components such as the inverters also may be replaced or upgraded
- Replacement and reinvestment in the equipment over time will provide additional local tax revenue



- **Batteries:** Lithium-ion batteries stacked together in modules” and combined in side-by-side “arrays” which then are housed in stout, metal containers
- **Site Controller & Energy Management System:** Computers and software for monitoring and control
- **Inverters:** Devices that convert DC power (used by BESS) to AC power (used by grid), and the reverse
- **Transformers & Switchgear:** Equipment that changes the voltage of electricity as it travels between the inverters and the grid
- **Thermal Management & Fire Suppression System:** HVAC systems, sensors and other equipment that manage temperatures and respond to any sign of fire risk





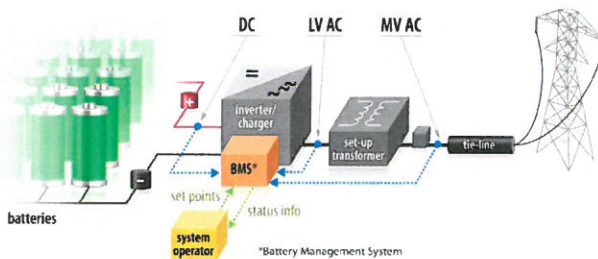
## ANSWERS TO FREQUENTLY ASKED QUESTIONS

### Q. How could a BESS avoid the need for a new high-voltage transmission line?

A. The grid is sized to meet peak demand, which typically occurs only a few hours a year. When growth in demand exceeds the grid's capacity, costly investments must be made to upgrade the grid. BESS help avoid or defer these investments by meeting peak demand with stored energy.

### Q. How would a BESS increase the reliability of the grid?

A. BESS can supply power to the grid almost instantly. This makes them extremely valuable when power plants shut down unexpectedly and conventional back-up sources are much slower to provide substitute power.



### Q. How long does a BESS last?

### Q. How many jobs does a BESS create?

A. Construction of a BESS will create scores of construction jobs, including many for skilled trades such as electrical work. Operations require only a few workers, but they are high-quality positions. Importantly, BESS make meaningful contributions to the local tax base.

### Q. Is there a risk of leaking of chemicals?

A. The risk is extremely small. BESS are housed in stout metal containers. Batteries are not exposed to liquids that could end up on the ground or in the water. Unlike lead-acid batteries used in millions of motor vehicles, the lithium in lithium-ion batteries is non-toxic. Very small amounts of other materials (such as cobalt, nickel, and manganese) must be properly managed, but regulations governing the transport of batteries make them safe.

### Q. Do battery facilities create noise?

A. Only a modest amount. The primary sources of sound are the inverters and the HVAC system. BESS typically can be sited and designed so that any noise is insignificant at the property boundary.

### Q. What happens when a battery fails or malfunctions?

A. A failed or malfunctioning battery will be removed from the BESS and kept in temporary storage on-site until it is transported off-site to be reused, recycled or disposed of as required. For instance, batteries may be temporarily placed in a spill-proof container located at the BESS until they are transported off-site for recycling.

### Q. How are used batteries disposed of?

A. Batteries that no longer meet BESS requirements will be reused, recycled or disposed of in accordance with applicable requirements (not on site). The number of businesses that mechanically separate and re-process the materials in lithium-ion batteries is on the rise.

### Q. What about overheating and fire?

A. BESS have redundant and overlapping safety features to prevent, detect, and respond to fire. Past fires at BESS were due to poor design, inadequate safety controls, and weak training of first responders. The industry recently has adopted significant fire safety improvements, including engineering oversight, quality-control during installation and robust and redundant data monitoring systems. Facility operators also now work closely with local first responders to provide robust training.



### Q. Do BESS emit any air pollution?

A. No. There are no emissions of air pollutants during the normal operation of a BESS.

A. Construction of a BESS will bring an increase in traffic near the site comparable to construction of a large commercial project, such as a "big box" store. Added traffic during operations is negligible.